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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,286	01/16/2002	Mitsuo Horikawa	05711.0137	2337

7590 11/04/2004

Finnegan, Henderson, Farabow,  
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1300 I Street, N.W.  
Washington, DC 20005-3315

EXAMINER

BOYD, JENNIFER A

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 11/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/046,286

Applicant(s)

HORIKAWA, MITSUO

Examiner

Jennifer A Boyd

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 August 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/31/03.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 10, 2004 has been entered. The Applicant's Amendments and Accompanying Remarks, filed August 10, 2004, have been entered and have been carefully considered. Claims 1 – 5 are amended and claims 1 – 5 are pending. The invention as currently claimed is not found to be patentable for reasons herein below.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Rejections - 35 USC § 112***

3. Claims 1 – 5 remain rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 2 – 5 are rejected as being dependent on rejected claim 1. The details of the rejection can be found in paragraph 8 of the previous Office Action dated August 26, 2003.

***Claim Rejections - 35 USC § 102/103***

4. Claims 1 – 2 remain rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Matsushima (US 6,505,652). The details of the rejection can be found in paragraph 5 of the Office Action mailed on March 1, 2004. The rejection is maintained.

Claim 1 has been amended to require that the core string is “woven in said element-mounting edge portion”. Matsushima teaches that in the seventh aspect of the invention the twisted yarns composed of synthetic fiber multifilament yarns are assembled to form a core string 9 and the core string 9 is interwoven into the side edge portion 5 (column 6, lines 44 – 53). As shown in Figure 1, the side edge portion contains the flexible yarns 6 which had been equated to Applicant’s “warp disposed between the core string and tape main portion”.

Claim 1 has also been amended to require that the “core string has a higher thermal contraction coefficient than all warps”. In one embodiment, the warp yarns 2 of the main tape portion 4, or “foundation warp”, may comprise polyethylene terephthalate fibers, the core string, or “core string”, may comprise nylon 6 fibers and the flexible yarns, or “warp disposed between the core string and tape main portion”, may comprise nylon 6,6 fibers. It should be noted that polyethylene terephthalate has a thermal expansion (contraction) coefficient of  $65 \times 10^{-6}/^{\circ}\text{C}$ , nylon 6 has a thermal expansion (contraction) coefficient of  $80 - 83 \times 10^{-6}/^{\circ}\text{C}$  and nylon 6,6 has a thermal expansion (contraction) coefficient of  $80 \times 10^{-6}/^{\circ}\text{C}$  (Marks’ Standard Handbook for Mechanical Engineers). Therefore, the warp yarns 2 of the main tape portion 4 would have the lowest thermal contraction coefficient, the flexible yarns 6 would have a higher thermal

contraction coefficient then the warp yarns 2 and the core string 9 would have the highest thermal contraction coefficient.

***Claim Rejections - 35 USC § 103***

5. Claims 3 - 5 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Matsushima (US 6,505,652). The details of the rejection can be found in paragraph 6 of the Office Action mailed on March 1, 2004. The rejection is maintained.

***Response to Arguments***

6. Applicant's arguments filed December 31, 2003 have been fully considered but they are not persuasive.

7. In response to Applicant's argument that the amendment to claim 1 more clearly recites the structural relationship of the components as well as the relative relationships of the physical properties thus overcoming the 35 USC 112 rejection set forth, the Examiner respectfully argues the contrary. Although the Applicant has more clearly described the slide fastener tape, the Applicant still relies on the relative values of thermal contraction coefficients to describe the material comprising the "foundation warp", "core string" and "warp disposed between core string and tape main portion". The Applicant has failed to set forth the structural/physical properties of the **material** used for the "foundation warp", "core string" and "warp disposed between the core string and tape main portion". **Once again**, it is suggested to the Applicant to claim the material used for the "foundation warp", "core string" and "warp disposed between the core string and tape main portion" such as polyester for the "foundation warp", etc.

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8. In response to Applicant's argument that Matsushima does not teach that the core string is "woven in said element-mounting edge portion", the Examiner respectfully argues the contrary. Matsushima teaches that in the seventh aspect of the invention the twisted yarns composed of synthetic fiber multifilament yarns are assembled to form a core string 9 and the core string 9 is interwoven into the side edge portion 5 (column 6, lines 44 – 53). As shown in Figure 1, the side edge portion contains the flexible yarns 6 which had been equated to Applicant's "warp disposed between the core string and tape main portion". See the rejection above in paragraph 4.

9. In response to Applicant's argument that thermal contraction coefficient values are not inherent, the Examiner respectfully argues the contrary. Although Matsushima does not specifically disclose that the "foundation warp", "core string" and "warp disposed between the core string and tape main portion" have particular thermal contraction coefficient values, Matsushima discloses different polymeric materials used for those components that are known to have certain thermal contraction coefficients. In the rejection detailed in paragraph 4 above, it is shown that the "foundation warp", "core string" and "warp disposed between the core string and tape main portion" can have the relative thermal contraction coefficient relationship as required by the Applicant. Matsushima teaches all the physical and structural limitations required by claim 1, therefore, it is asserted that the claimed properties must be inherent to the slide fastener tape. If said properties are not inherent, it is asserted that Applicant's claim must be incomplete. In other words, if Applicant's asserts a lack of inherency, then Applicant's claimed invention is missing an element that is critical to the invention, which would patentably distinguish it from the known prior art. *Once again*, it is suggested to the Applicant to claim the material which

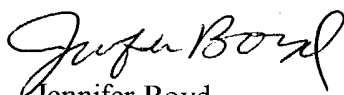
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comprises the "foundation warp", "core string" and "warp disposed between core string and tape main portion" (i.e. the "foundation warp" comprises a polyester yarn, etc.).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer A Boyd whose telephone number is 571-272-1473. The examiner can normally be reached on Monday thru Friday (8:30am - 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on 571-272-1478. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jennifer Boyd  
October 29, 2004

  
**Ula C. Ruddock**  
Primary Examiner  
Tech Center 1700